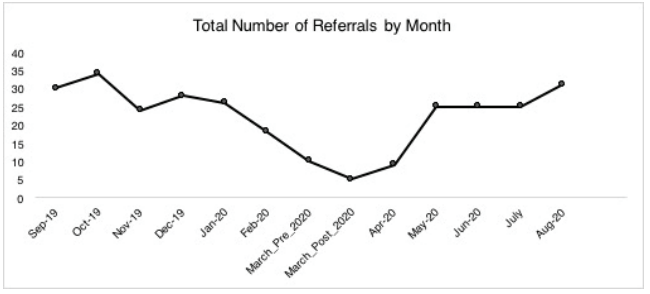
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

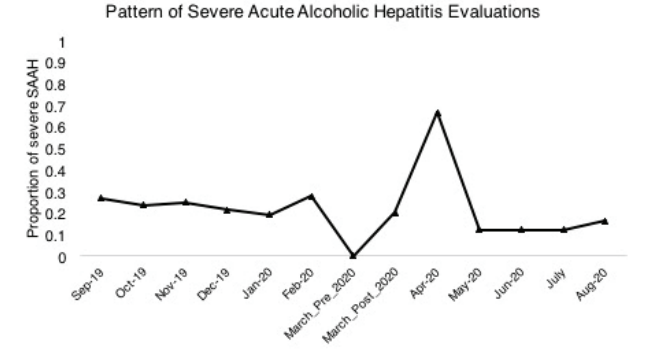
were enforced in California (3/19/2020). The subset of patients evaluated for AH was further characterized.

Results: Between 09/2019 and 08/2020, 290 hospitalized patients were evaluated for LT. From 09/2019 to 01/2020, 24 to 34 inpatient LT evaluations were performed per month. The numbers declined surrounding the onset of COVID-19 pandemic: from February through April, 18, 15, and 9 inpatient evaluations were performed respectively each month. However, by May 2020, numbers returned to their pre-COVID-19 baseline (**Figure 1**). In the pre-specified study period, 56 (19.3%) patients underwent LT evaluation for AH. Their mean age was 43.4 years. There were 29 men (51.7%) and the majority were White (n=29, 51.7%), followed by Latinx (n=19, 32.1%). 29 patients (51.7%) were on hemodialysis. The mean total bilirubin was 24.0 mg/dL. The proportion of LT evaluations performed for AH increased from 49.4% before the stay-at-home order to 82.4% (p-value=0.01) in April 2020 immediately following it. This proportion promptly returned to baseline in May (**Figure 2**). Still, a minority of all patients with AH ultimately underwent LT or listing (n=8, 16%).

Conclusion: LT evaluation practices for hospitalized patients changed in the early stages of the COVID-19 pandemic but returned to the pre-COVID-19 baseline by May of 2020 following improved understanding of COVID-19 and implementation of hospital practices. Hepatologists should remain vigilant and counsel their patients of alcohol misuse during the pandemic, especially given increases during the Fall of 2020.



Total Number of Inpatient LT Evaluations by Month



Proportion of Inpatient LT Evaluations Performed for AAH, by Month

Su319

KEY PRO-INFLAMMATORY/INJURY FEATURES OF COVID-19 PATIENTS WITH ALCOHOL USE

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Introduction: SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2; causes coronavirus disease [COVID-19]). Alcohol Use Disorder (AUD) comorbid with COVID-19 (AUD+COVID-19) could present with severe symptoms, if the pre-existing proinflammatory state of AUD were aggravated by the inflammation of COVID-19. However, the exacerbation of clinical and laboratory markers is understudied in COVID-19 patients with excessive alcohol drinking. We previously reported two patients with alcohol-associated hepatitis and COVID who died. Thus, we aimed to evaluate the impact of alcohol use in the inflammatory response in patients with COVID-19. Methods: We conducted a retrospective study of 238 patients with COVID-19 from a single hospital registry who had a known drinking history. Patients were grouped by their reported amount of alcohol consumption: alcohol abstainers (AlcA, n= 183, 77 % as disease controls); social drinkers (SD, drank $\leq$ 4, if females, and $\leq$ 5, if males, drinks/week, n=37 [16%] as intermediate responders of alcohol intake); and excessive drinkers (ExD, drank $\geq$ 4, if females, and $\geq$ 5, if males, drinks/week n=16 [7%] as the comorbid condition). Clinical and laboratory markers were compared between the groups for identifying any key differences. Results: Mean age of the patients was 43 yrs. in this study. Among the patients, 37% were African American, 37.5% Caucasians and 23% Hispanics. Only 18 patients had an underlying liver disease. Males represented 46 % of the total population, there were no other demographic differences. The lymphocyte count was significantly elevated, (p=0.008) in the in SD compared to AlcA. Discussion: Lymphopenia and increased levels of inflammatory and injury markers has been associated with disease severity in COVID-19. In one meta-analysis, potential biomarkers were examined for correlation with severity of COVID-19. Severe COVID-19 cases were found to have significantly lower lymphocyte count. We found a significant difference in lymphocyte count in patients with alcohol consumption as compared to non-drinkers. Lymphopenia has previously been correlated with alcohol use. Conclusion: Determination of lymphocyte count could potentially be useful in determining and distinguishing the severity of inflammation/injury in COVID-19 patients comorbid with excessive drinking. This study is underpowered, but is potentially useful for the care of COVID patients with excessive drinking.

Table 1. Inflammatory markers in patients with COVID-19 and alcohol consumption

	Alcohol use			p-values			
	No (G1)	Social (G2)	Excessive (G3)	Overall	G1 vs G2	G1 vs G3	G2 vs G3
CRP	90.1±82.66	35.55±43.2	64.67±35.93	0.5533	0.3494	0.5451	0.6733
CK-mb	238.94±342.86	7945±13631.28	892.2±1182.61	0.0093	0.0025	0.7279	0.01
Neutrophil count	6.17±3.7	5.24±3.16	7.69±6.37	0.2604	0.3504	0.2239	0.0991
Lymphocyte count	1.28±0.71	1.77±0.88	1.46±0.67	0.0275	0.0083	0.4274	0.2665
Ferritin	558.6±839.74	413±507.33	611.6±540.88	0.9126	0.7011	0.8888	0.6928
IL-6	259.69±378.99	132.55±10.68	NaN±NA	0.6533	0.6533	NA	NA

CRP: C-reactive protein

Su320

A RETROSPECTIVE ANALYSIS OF OUTCOMES AMONGST COVID-19 PATIENTS WITH ACUTE HEPATITIS RECEIVING N-ACETYLCYSTEINE THERAPY IN A SAFETY NET HOSPITAL

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PURPOSE AND BACKGROUND: The novel coronavirus (COVID-19) threatened the existence of mankind in its debut in the year 2019. Although primarily affecting the pulmonary system, patients infected with COVID-19 displayed widespread systemic insult. A majority of patients exhibited hepatic injury throughout their course of infection. In this study we investigate the use of N-acetylcysteine (NAC) in patients hospitalized due to COVID-19 with acute hepatitis and its effect on overall outcomes. MATERIAL AND METHODS: A retrospective analysis of medical records was performed on 864 patients hospitalized with COVID-19 infection from March 13th, 2020 to May 13th, 2020 at Nassau University Medical Center in New York. The primary outcome of interest was mortality. Logistic regression analysis controlling for confounding variables was used to determine the association of NAC and mortality in patients infected with COVID-19. The review included patients with acute hepatitis demonstrated by alanine aminotransferase (ALT) and aspartate aminotransferase (AST) greater than 120 U/L (3 times the upper level of normal) during their hospitalization. Patients received NAC in the form of oral, intravenous (IV), or both. Statistical analysis was performed to assess all-cause mortality within these three groups who received NAC and to those who did not receive NAC. RESULTS: A total of 138 patients were included in this study. Among them, 114 received oral NAC, 15 received IV, and 9 received both. Multivariate logistic regression model predicting mortality and controlling for age, CAD, Intubation, HTN, and DM was performed to determine the association of NAC and mortality. This study showed a statistically significant (p-value < 0.05) decrease in all-cause mortality in patients who received oral NAC when compared to those who received IV NAC or both. Furthermore, this study also indicated that patients who did not receive any form of NAC had a statistically significant (p-value < 0.05) increased risk of all-cause mortality compared to those who received any form of NAC. CONCLUSION: This study suggests that patients with acute hepatitis who received NAC had decreased mortality when compared to patients who did not receive NAC. Oral NAC was associated with the lowest risk of all-cause mortality amongst patients who received NAC as IV or both. In addition, patients with acute hepatitis who received any form of NAC had overall decreased all-cause mortality as compared to patients who did not receive NAC. A potential limitation to this study may be the relatively small sample size and missing lab values used to determine the effectiveness of NAC, which further reduced the size of the dataset. A greater sample size would increase the power of the study and aid in assessing outcomes in patients infected with COVID-19.

Su321

DEGREE AND PATTERN OF ELEVATED HEPATOBILIARY ENZYMES ARE PROGNOSTIC OF SEVERE CLINICAL OUTCOMES IN HOSPITALIZED COVID-19 PATIENTS

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Elevated transaminases are common in hospitalized patients with Covid-19 and may be related to disease severity. However, few studies have examined the degree of transaminase elevation and their relation to outcomes of disease severity. In this retrospective cohort review study of 135 patients admitted to a single academic community hospital between March 1st, 2020-July 1st, 2020, we used multivariate logistic regression to determine if patients with higher peak transaminases, defined as the highest laboratory value obtained during admission, categorized into 1-2 times (X) the upper limit of normal (ULN), 2-5X ULN or >5X ULN, had different clinical outcomes, relative to those with normal transaminases. Relative to patients with normal transaminases during hospitalization, patients with peak Aspartate Aminotransferase (AST) >2X ULN were found to have multiple clinical outcomes of disease severity (**Figure 1A**), including need for intubation by an adjusted odds ratio (aOR) of 11.58 (95% CI: 3.61, 42.86), vasopressors by an aOR 7.70 (95% CI: 2.09, 33.31), ICU admission by an aOR of 9.81 (95% CI: 3.07, 34.72) and ICU stay > 7days by an aOR of 6.30 (95% CI: 1.71, 27.06). Interestingly, patients with peak Alanine Aminotransferase (ALT) > 1X ULN were found to have similar outcomes (**Figure 1B**), including need for intubation by an aOR of 3.84 (95% CI: 1.16, 14.09), vasopressors by an aOR of 4.75 (95% CI: 1.23, 21.44), ICU admission by an aOR of 6.17 (95% CI: 2.16, 20.18) and ICU stay > 7 days by an aOR of 5.19 (95% CI: 1.57, 19.63). Patients with peak AST and ALT >5X the ULN had a similar profile, but also had increased odds of in-hospital mortality by adjusted odds ratios of 10.79 (95% CI: 1.28, 103.51) and 7.60 (95% CI: 1.03, 57.96), respectively (**Figure 1A and B**). We additionally found that when categorizing patients by hepatobiliary laboratory abnormality (**Figure 2**), patients with a predominantly mixed pattern (elevated